REMARKS/ARGUMENTS

Claims 1-5 and 18 remain in this application. Claims 4 and 6-17 have been canceled without prejudice to file one or more timely divisional applications. Claim 18 is presented with this amendment to more clearly define the invention.

Rejections under 35 USC 112

Claim 1 has been amended in response to the rejection under 35 USC 112 to delete "of the respective mold product" and "of the respective kind".

Rejections under 35 USC 103

The present invention combines crushing, packaging, classification and cleaning to provide a resin recycling system. The prior art does not describe or suggest each element as claimed and there is no motivation to combine the claims elements into a process as claimed.

Crushing: None of the cited references describe or suggest crushing resins into pieces in which 70% or more of the crushed pieces have an equivalent diameter in the range of 1 to 50 mm as claimed. Crushed resinous pieces in the claimed ranges are important for subsequent steps in the claimed process. The importance of having crushed resinous pieces in the claimed range and the advantages provided by those ranges are not recognized or suggested in the cited references.

Packaging: None of the cited references describe or suggest putting crushed resinous pieces into a package having a transparent portion as claimed.

Classification: None of the references describe or suggest classifying crushed resinous pieces contained in a package having a transparent portion as claimed.

Cleaning: None of the references describe or suggest the cleaning means as now claimed.

To establish a *prima facie* case of obviousness there must be some suggestion or motivation in the prior art to make the claimed invention, there must be a reasonable expectation of success, and the prior art reference must teach or suggest all of the claim limitations. MPEP 2142; *In re Vaeck*, 947 F.2d 488, 20 USPQ2d, 1438 (Fed. Cir. 1991). Both the suggestion and the expectation of success must be founded in the prior art, and not in the Applicant's disclosure. *In re Dow Chemical Co.*, 5 USPQ2d 1529 (Fed. Cir. 1988). The mere fact that the prior art can be modified does not make the modification obvious unless the prior art taught or suggested the desirability of

the modification. *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984). The patent office has the burden of establishing a prima facie case of obviousness. MPEP 2142; *In re Vaeck*, 947 F.2d 488, 20 USPQ2d, 1438 (Fed. Cir. 1991).

U.S. Patent No. 4,566,641 to Okamoto

The '641 patent does not suggest or describe a crushing means that would produce crushed resinous pieces in which 70% of the crushed resinous pieces have an equivalent diameter in the range of 1 to 50 mm as claimed. The '641 device is not a crushing means but a breaking apparatus for cutting and breaking fibrous or synthetic resin films (col. 1, lines 6-9). The sheet breaking apparatus of the '641 patent includes a pair of endless band-like cutting rotating bodies which have cutting blades fixed thereto (col. 1, 35-38). Hence, one of ordinary skill would not expect that the device in the '641 patent would produce a certain percentage of crushed resinous pieces in the range claimed.

The '641 patent does not describe or suggest that it could combined with packaging, classification and cleaning as claimed. The '641 patent suggest that its apparatus "is applicable to pretreatment for burning, reclaiming or regenerating waste materials." (col. 3, lines 58-62). However, this does not provide one of ordinary skill with any suggestion or guidance as to which choices to make in regards to further processing of resins to provide the claimed process.

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The '994 references does not describe or suggest a device that provides resinous pieces in which 70% of the crushed resinous pieces have an equivalent diameter in the range of 1 to 50 mm. The '994 describes crushing thermosetting resins into much smaller particle diameters of 50 - 1000 mu m, which is 0.05 mm to 1 mm. Particle size is very important in the present invention. As indicated at page 9, line 26 to page 10, line 8 of the present application

> "If the equivalent diameter of the crushed resinous pieces is smaller than 1 mm, there is an inconvenience in that foreign matters could not be removed during cleaning by the cleaning means, because the crushed resinous piece is pulverized. For example, when the cleaning is carried out by the abrasion, the abrasion becomes impossible. Also, the small resinous pieces are liable to stick to the interior of the crusher or the bag due to static electricity. "

Given the disadvantages which occur when small particle size resins (<1 mm) are generated, one of ordinary skill would like avoid combining this type of crushing unit with a packaging means

and a cleaning means. Hence, the '994 patent does not at all suggest its combination with other components to get the claimed process.

U.S. Patent No. 5,365,075 to Peterson

The '075 patent does not suggest or describe a means for classifying crushed resinous pieces which are contain in a bag having a transparent portion as claimed. The '075 patent describes a method for differentiating polymers contained in plastic article where plastic articles are passed between a light source and an array of detectors (col 2, lines 62-67). The resins being processed in the '075 patent appear to be directly scanned (see Fig. 1 of the '075 patent). Further, the '075 patent indicates at column 4, lines 60-65 that

> "In a typical mode of operation and utilizing conventional techniques (except for the practice of the present invention), the plastic articles, which have been previously directed through a debaler and screen and presentation system are now ready for entrance into the sensing station."

Hence, the '075 patent provides no suggestion to one of ordinary skill to combine a classification system with a crushing means that provide a certain size of resinous pieces and a packaging means that puts those resinous pieces in a bag having a transparent portion as claimed.

U.S. Patent No. 5,282,713 to Lande

The '713 patent does not describe or suggest a resin recycling system as claimed. The '713 patent describes an apparatus that opens plastic bags containing recyclable materials and disperses those materials (col. 1, lines 15-17). Crushing, packaging, classification, and cleaning in a process as claimed are not at all described or suggested in the '713 patent.

U.S. Patent No. 5,443,652 to Scarola et al.[1]

The '652 patent does not describe a resin recycling system as claimed or a cleaning means that includes a vessel and agitating member with where the vessel and/or agitator includes an abrasive surface as claimed. The '652 patent describes an apparatus for cleaning both rigid and flexible films, as well as other plastic materials, such as bottles (col. 3, lines 39-42). The '652 patent makes no suggestion that its cleaning apparatus can be combined in as system which crushed resin

[1]The Scarola et al. reference is incorrectly identified in the office action as U.S. 5,433,652 instead of its correct number which is U.S. 5,443,652.

is first packaged and then classified as claimed. Further, the '652 patent does not suggest the cleaning means as now claimed.

CONCLUSION

From the foregoing, favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,

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